

REMARKS

The Final Office Action mailed August 3, 2011, has been received and carefully noted. Claims 1-6, 8-11, and 34-37 are currently pending in the application and are presently under consideration. Claim 1 is amended. Claim 7 was previously canceled, and claims 12-33 were previously withdrawn from consideration.

Favorable reconsideration of the pending claims is respectfully requested in view of the following comments.

Rejection of Claims Under 35 U.S.C. § 101

Claims 1-6, 8-11 and 34-37 stand rejected under Claim 1 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Claim 1 has been amended to state, “evaluating, *by a computer system*, a shipping rule including a constraint for the shipment during the simulating, the shipping rule permitted to be a complex logical statement....” Claim 1 as amended positively recites the particular machine to which it is tied by identifying the machine that performs the recited ‘evaluating.’ Therefore, Applicant respectfully submits that amended claim 1 satisfies 35 U.S.C. § 101.

Claims 2-6, 8-11 and 34-37 depend from claim 1 and incorporate the limitations thereof. Thus, at least for the reasons set forth above these claims are also directed to statutory subject matter. Accordingly, reconsideration and withdrawal of the non-statutory subject matter rejection of these claims are requested.

Rejection of Claims Under 35 U.S.C. § 103

Claims 1-6 and 8-11 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Benda et al. (U.S. Patent No. 6,937,992 B1) (“Benda”) in view of Cappellini (U.S. Publication No. 2003/0014286 A1) (“Cappellini”) and Chowdhury et al. (U.S. Patent No. 6,876,958 B1) (“Chowdhury”). The Applicant respectfully requests withdrawal of this rejection because Benda, Cappellini, and Chowdhury do not teach or suggest all of the limitations of the claims.

To establish a *prima facie* case of obviousness, Examiner must provide some articulated reasoning with some rational underpinning to support the conclusion of obviousness. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Independent claim 1 recites, among other limitations, “detecting a skipping of the range of the constraint.” As recited in claim 34, “the range of the constraint is skipped when the loading of a shipping unit does not exceed a minimum bound of the constraint and adding another shipping unit exceeds the maximum bound of the constraint.” An exemplary simplified scenario related to the details of a skipped range was discussed in the Examiner Interview of April 28, 2011 and the most recent Response to Final Office Action dated May 23, 2011. For ease of reference, this example is again included. In this example, a constraint is imposed on a shipment that it has a total weight in the range of 2500 to 2800 pounds. The minimum bound of the constraint in this case is 2500 pounds, and the maximum bound of the constraint is 2800 pounds. An example shipping unit has a weight of 1000 pounds. If two shipping units are loaded, the total weight is 2000 pounds, which is less than the minimum bound of 2500 pounds. If three shipping units are loaded, the total weight is 3000 pounds, which is greater than the maximum bound of 2800 pounds. These load configurations make it impossible to meet the required range of the constraint because the range of the constraint is skipped between the loading of two shipping units and the loading of three shipping units.

To detect a skipping of the range of the constraint, the simulation is monitored to detect the skipping of the range. The system is thus aware of a previous state of the simulation and a current state of the simulation. During the simulation, if the range of the constraint is not satisfied and the range of the constraint is not skipped, that load configuration is stored as the previous state. In the example above, the load configuration of two shipping units would be stored as the previous state. The simulation would then continue by adding another shipping unit. The loading of three shipping units causes the range of the constraint to be skipped. The system detects that the range of the constraint is skipped because the previous state indicates that the load configuration of two shipping units did not satisfy the range of the constraint and the current state of the simulation (i.e., a load configuration of three shipping units) indicates that the constraint is skipped.

Examiner acknowledges that Benda in view of Cappellini fails to teach or suggest “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping,” as recited in claim 1. Final Office Action of August 3, 2011 at page 5. Examiner relies on Chowdhury to cure the defects of claim 1 and cites column 3 lines 34-37, column 12 lines 24-44, and column 14 lines 19-24 of Chowdhury in support of this position. *Id.* Examiner alleges that “[i]t would have been obvious ... to modify the teachings of Benda in view of Cappellini to include detecting a skipping of a range in response to the skipping as taught by Chowdhury.” Final Office Action mailed August 3, 2011, page 5. Applicant respectfully directs Examiner’s attention to *In re Kumar*: “To render a later invention unpatentable for obviousness, the prior art must enable a person of ordinary skill in the field to make and use the later invention.” 418 F.3d 1361, 1369 (Fed. Cir. 2005).

The first cited section of Chowdhury, column 3 lines 34-37, only broadly states: “Embodiments of the current invention further include methods and systems of optimized sequencing and configuring of items to be picked, packed and shipped.” Chowdhury discloses by way of example “optimization of the costs associated with order fulfillment....” Chowdhury, column 3, lines 37-39. Applicant does not discern and Examiner does not clarify how “methods and systems of optimized sequencing and configuring of items” enables the claimed limitation of “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.” Rather, Applicant respectfully submits that a broad introductory statement such as “methods and systems of optimized sequencing and configuring of items” does not effectively enable any method of optimized sequencing and configuring items.

In further support of Examiner’s obviousness rejection under Chowdhury, Examiner alleges that column 12 lines 24-44 discloses Applicant’s claimed limitation of “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.” Chowdhury column 12 lines 24-44 discloses only that the system “calculate[s] the minimum number of cases that may be used to pack the items on the item list.” Applicant does not discern and Examiner does not clarify how column 12 lines 24-44 of Chowdhury enables Applicant’s recited limitation of “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.” Applicant’s entire limitation would not be enabled through “calculat[ing] the

minimum number of cases that may be used to pack the items,” because Chowdhury does not detect any cases that have been skipped and therefore does not adjust the process in response to the skipping.

In final support of Examiner’s obviousness rejection under Chowdhury, Examiner cites column 14 lines 19-24. Examiner’s cited reference discloses only that the process of Chowdhury “is a simulated, or calculated, placement, rather than actual, physical placement of the items.” Applicant does not discern and Examiner does not clarify how column 14 lines 19-24 enable Applicant’s invention. Applicant respectfully submits that the recited limitation of “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping” is not enabled through a perfunctory mention that “the placement into the case during the cartonization process is [] simulated....” Chowdhury, col. 14 lns. 20-21. As mentioned above, Chowdhury does not detect that any cases have been skipped and therefore does not adjust the process in response to the skipping.

For at least the above reasons, Chowdhury does not teach “detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping,” as recited in claim 1. Accordingly, reconsideration and withdrawal of the obviousness rejection of claim 1 are respectfully requested.

Claims 2-6 and 8-11 depend from independent claim 1 and thus incorporate the respective limitations thereof. For at least the reasons mentioned in regard to claim 1, these claims are not obvious over the cited references. Accordingly, reconsideration and withdrawal of the rejection of claims 2-6 and 8-11 are respectfully requested.

Claims 34-37 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Benda, in view of Cappellini and Chowdhury and in further view of Official Notice. The Applicant respectfully requests withdrawal of this rejection because Benda, Cappellini, and Chowdhury and Official Notice do not teach or suggest all of the limitations of the claims. Also, the Official Notice has not been properly established. Claims 34-37 depend from claim 1 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to claim 1, these claims are not obvious over the cited references. Further, the Official Notice has not been relied upon to disclose the above mentioned aspects of amended claim 1.

Traversal of Official Notice

Applicant respectfully traverses as improper Examiner's attempted use of Official Notice on pages 7-8 of the Final Office Action dated August 3, 2011 with regard to Examiner's rejection of dependent claims 34-37 as obvious over Benda in view of Cappellini and Chowdhury. First, Applicant notes that Official Notice should be "judiciously applied" and respectfully directs Examiner's attention to MPEP § 2144.03(A), which states that Examiner should only invoke Official Notice during a Final Office Action in rare circumstances. Second, Official Notice is improper unless the common knowledge upon which Examiner relies can be instantaneously and unquestionably demonstrated as being well-known. MPEP § 2144.03(A). Applicant respectfully asserts that Applicant's claims 34-37 cannot be condensed into Examiner's cursory summarization and subsequently be officially noticed. In rejecting claims 34-37 under 35 U.S.C § 103, Examiner contends that it is "well known in the computer simulation arts to have [Claim 34] minimum/maximum bound(s) for a simulation in which a minimum/maximum bound must be met and further [Claim 35 and 37] re-simulating from a given detected [Claim 36] simulation point (e.g. stored) that failed to meet the minimum/maximum bound(s) (e.g. backtracking)." Applicant's claims 34-37 are directed to more specific elements and limitations than Examiner's distillation; for example, claim 34: skipping "the range of the constraint ... when the loading of a shipping unit does not exceed a minimum bound of the constraint and adding another shipping unit exceeds the maximum bound of the constraint"; and claim 36: "storing a last load configuration that indicates the loading of a shipping unit that does not exceed the minimum bound of the constraint." Applicant respectfully submits that none of claims 34-37 is capable of "instant and unquestionable demonstration as being well-known." Indeed, judicial decisions instruct that Official Notice cannot be taken on the state of the art as Examiner has done: "[S]pecific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art." In *Re Eynde*, 480 F.2d 1364, 1370 (CCPA 1973). Thus, Examiner's invocation of Official Notice for the level of ordinary skill in the "computer simulation" arts is improper as a matter of law and Examiner's attempt at Official Notice is traversed.

Claims 34-37 depend from independent claim 1 and thus incorporate the respective limitations thereof. For at least the reasons mentioned in above regard to claim 1, these claims

are not obvious over the cited references. Because Examiner's attempted use of Official Notice is improper, the defect of the cited references with regard to claims 34-37 is not cured and therefore Examiner fails to establish a prima facie case of obviousness for these claims. Accordingly, reconsideration and withdrawal of the rejection of claims 34-37 are respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.



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Date